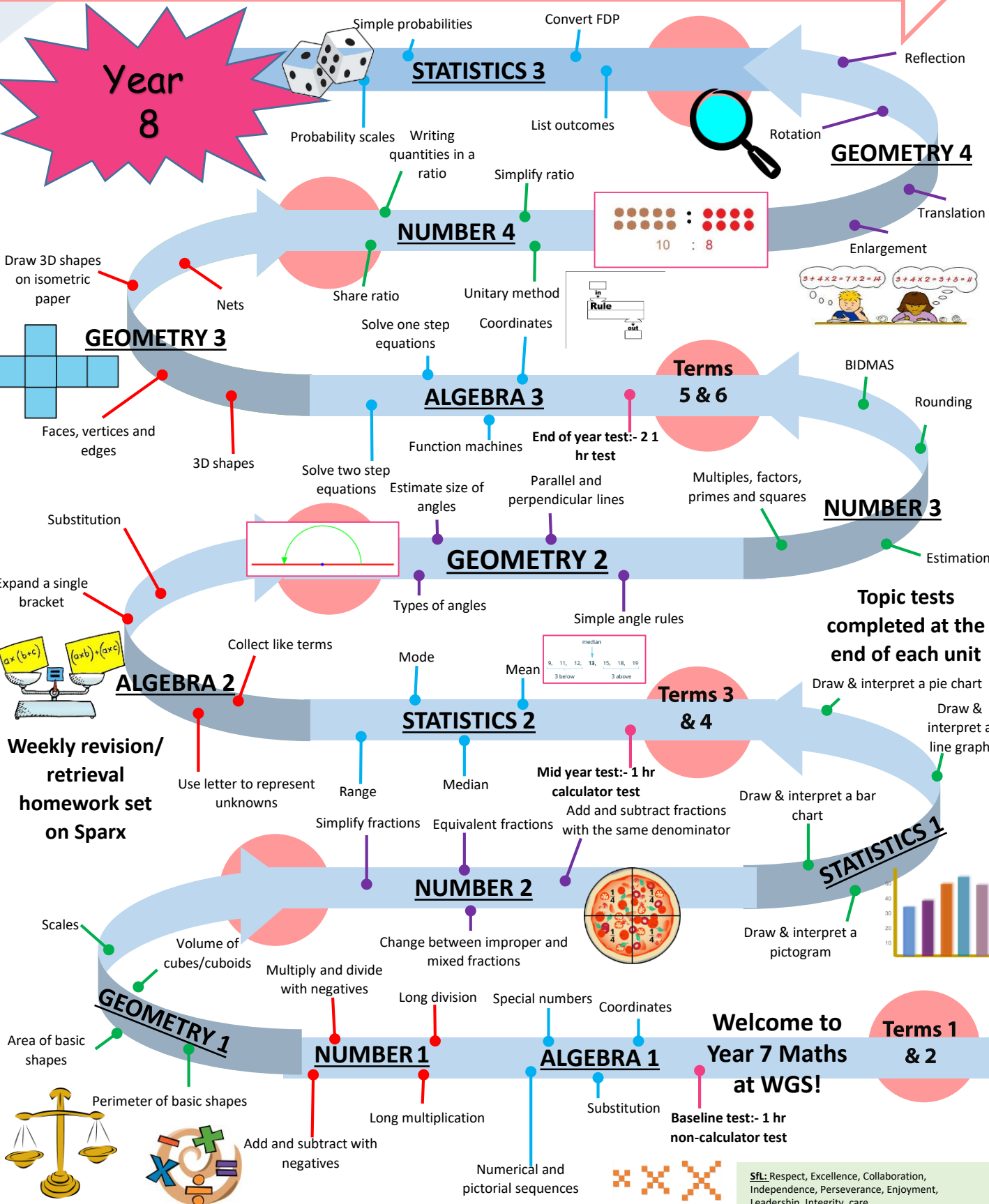




Curriculum Journey WGS Year 7

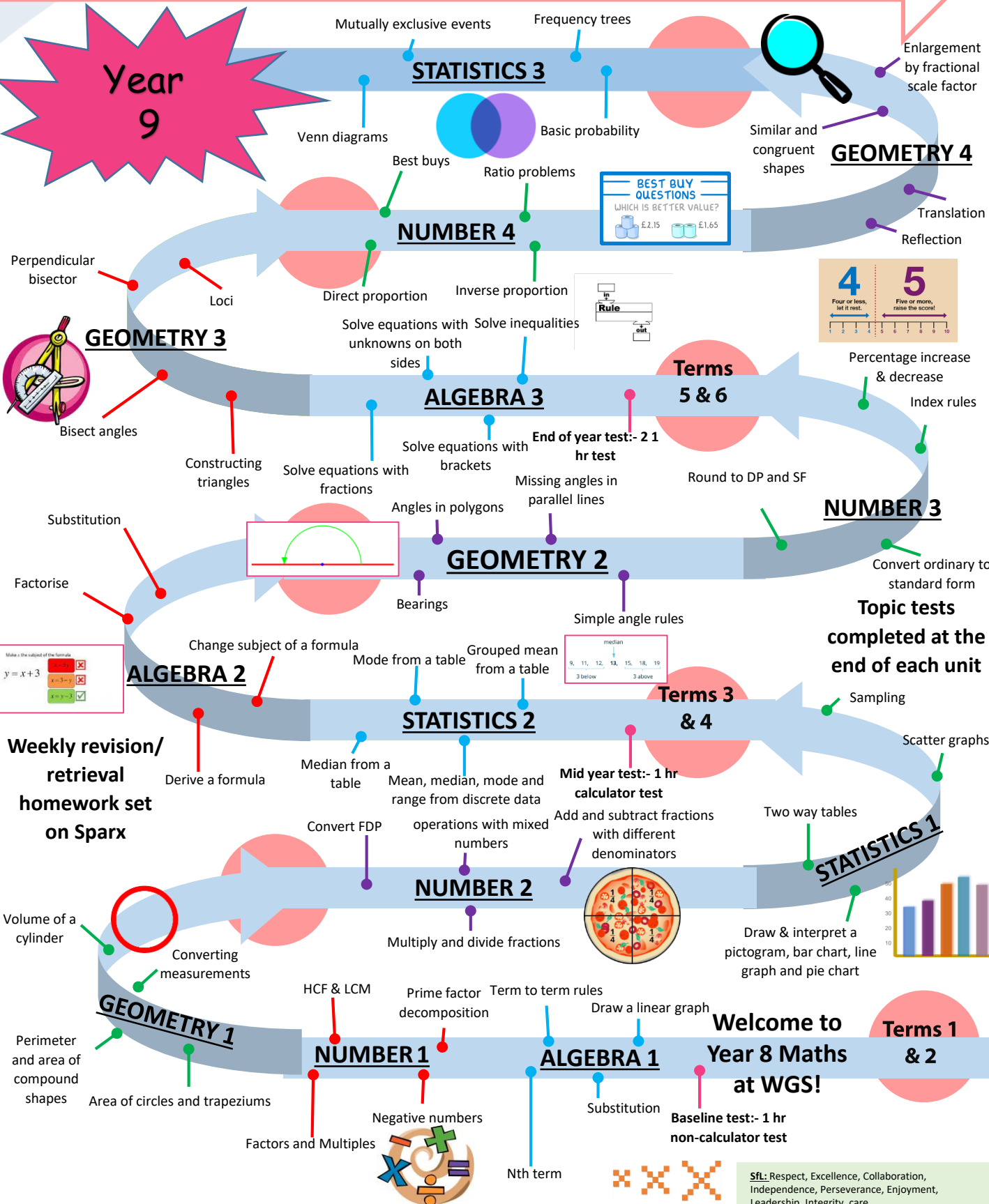
At Walderslade Girls School, our intention is to make Mathematics accessible to all, through the Skills for Life values. It is our intent, that our Mathematics provision will provide children with at the very least, a foundation for understanding number, reasoning, thinking logically and problem solving having shown and developed the Skills for Life values in everything they do, so that they are fully prepared for the future.





Curriculum Journey WGS Year 8

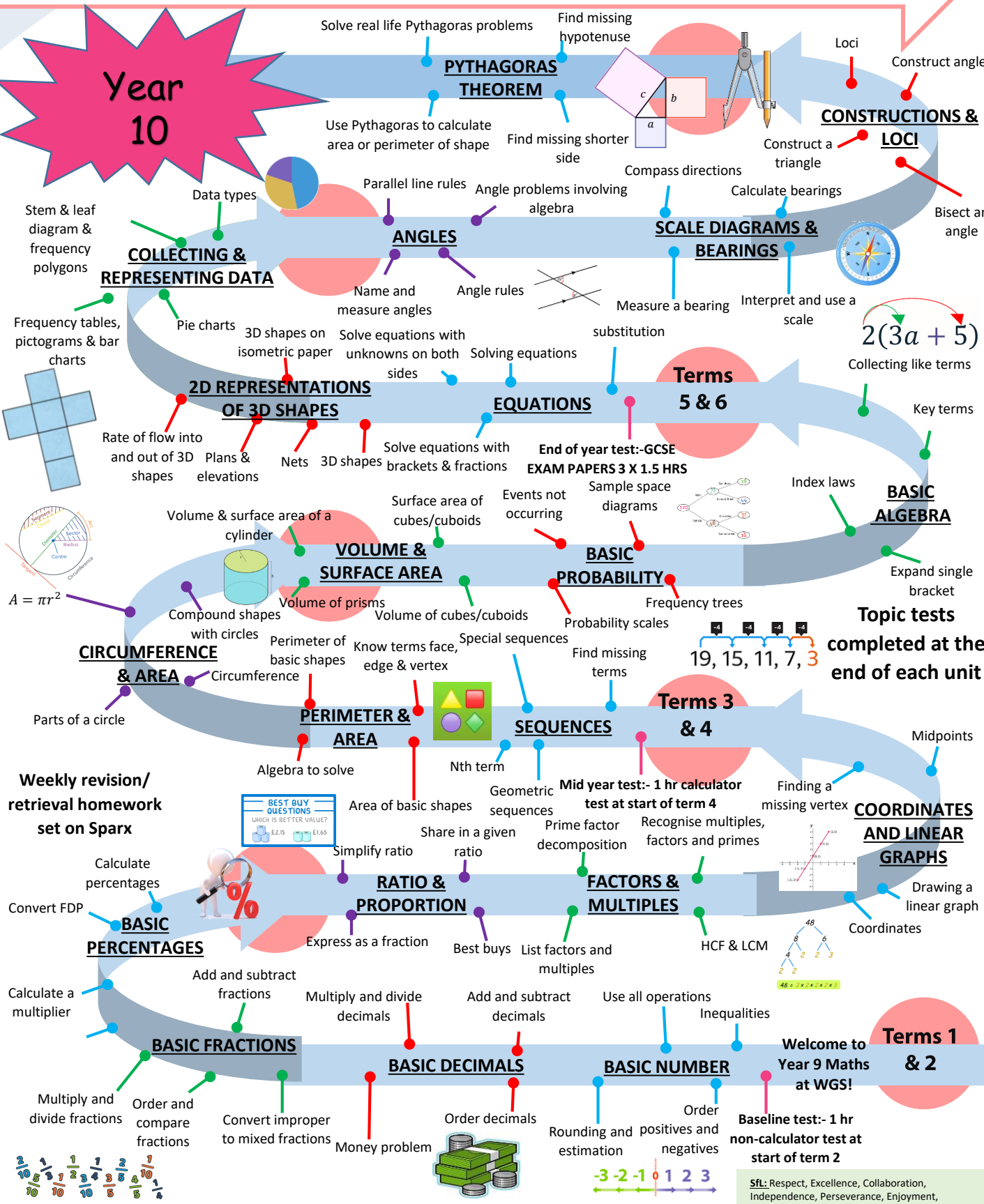
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Curriculum Journey WGS Year 9 Foundation

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Curriculum Journey WGS Year 9 Higher

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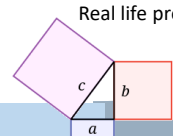
Year 10

BASIC TRIGONOMETRY

Tangent
Exact trigonometric values
Cosine
Sine

Finding area/perimeter

PYTHAGORAS THEOREM



Find hypotenuse

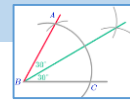
Find missing short side

Plans and elevations

$$2(3a + 5)$$

CONSTRUCTIONS & LOCI

Construct a triangle
Bisect a line & angle
Construct angles
Loci



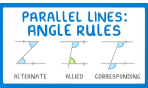
SCALE DIAGRAMS & BEARINGS

Directions on a compass
Measure bearings
Calculate bearings



ANGLES

Algebra angle problems
Basic angle rules
Name and measure angles



COLLECTING AND REPRESENTING DATA

Parallel line rules
Cumulative frequency curve
Pie charts, frequency polygons & stem and leaf
Box plots

Terms 5 & 6

Rate of flow

Isometric drawings

2D REPRESENTATION OF 3D SHAPES

nets
3D shapes



QUADRATICS & REARRANGING

Expand double brackets
Expand single bracket
index laws

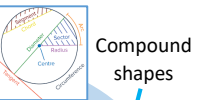
$$x^2 + 6x + 5 = (x + 5)(x + 1)$$

EQUATIONS

End of year test:- GCSE EXAM PAPERS 3 X 1.5 HRS
Solve equations with brackets and fractions
Substitution

$$2x - 3 = -7$$

Topic tests completed at the end of each unit



Compound shapes

VOLUME & SURFACE AREA

BASIC PROBABILITY

Events not occurring
Probability scales
28, 23, 18, 13 ...

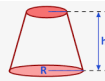
1	2	3	4	5	6	
H	2	3	4	5	6	7
T	2	4	6	8	10	12

Cylinders & Spheres
Volume and SA of cubes/cuboids

Terms 3 & 4

Mid year test:- 1 hr calculator test at start of term 4

CIRCUMFERENCE & AREA



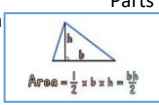
Circle
circumference
Perimeter of basic shapes

SEQUENCES

Use nth term rules
Find nth term
Describe 3D shapes
Area of basic shapes
Special sequences
Direct & inverse proportion

PERIMETER & AREA

Describe 3D shapes
Area of basic shapes
Involving algebra
Use all operations with integers, fractions & decimals
Convert FDP



Terms 1 & 2

Welcome to Year 9 Maths at WGS!
Baseline test:- 1 hr non-calculator test at start of term 2

RATIO & PROPORTION

Best buys
Simplify ratios
% increase & decrease



BASIC NUMBER

Order & compare numbers, fractions, decimals & percentages

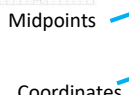


SfL: Respect, Excellence, Collaboration, Independence, Perseverance, Enjoyment, Leadership, Integrity, care

Weekly revision/retrieval homework set on Sparx

COORDINATES & LINEAR GRAPHS

Draw a linear graph
Finding a missing vertex
Midpoints
Coordinates



FACTORS & MULTIPLES

Recognise multiples, factors & primes
Prime factor decomposition
List multiples and factors





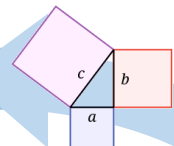
Curriculum Journey WGS Year 10 Foundation

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Year 11

BASIC TRIGONOMETRY

Tangent
Exact trigonometric values
Cosine
Sine



Finding area/perimeter

PYTHAGORAS THEOREM

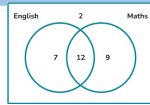
CONGRUENCE & SIMILARITY

Congruent shapes
Similar shapes



PROBABILITY

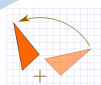
Frequency trees
Venn diagrams



Real life problems

TRANSFORMATIONS

Reflection
Rotation
Translations
Enlargements
Combined transformations



MEASURES

Can use SDT & MDV
Convert units
Time



CONSTRUCTION & LOCI

Construct angles
Bisect an angle
Loci
Perpendicular bisector



Terms 5 & 6

FORMAL MOCKS TERM 6, 3 GCSE PAPERS

Factorise quadratics
Factorise simple expressions

POLYGONS

Name polygons
Exterior angles
Interior angles
Solve polygon problems



$y = mx + c$
gradient y-intersect

SIMULTANEOUS EQUATIONS

Solve when needing to multiply
Use a graph to solve
Substitute to solve

SOLVING QUADRATIC EQUATIONS

Draw a graph to solve
Solve with no need to multiply
Solve quadratics

$$\begin{matrix} (1) 3x + 4y = 24 & (1) \times 3 \\ (2) 4x + 3y = 22 & (2) \times 4 \\ \hline & 9x + 12y = 72 \\ & 16x + 12y = 88 \\ \hline & -7x = -16 \\ & x = 2 \frac{2}{7} \end{matrix}$$

REAL LIFE GRAPHS

Plot and interpret graphs on containers
Solve polygon problems
Distance time graphs
Speed

GRAPHS RECAP & EXTENSION

Name a line from one point and gradient
Find equation of a straight line when given 2 points.
Gradients & y intercept

ALGEBRA RECAP

Weekly revision/retrieval homework set on Sparx

Expand single & double brackets
 $(x-9)(x+6)$
 $x^2 + 6x - 9x - 54$

SCATTER GRAPHS & TIME SERIES

Lines of best fit correlation
Interpolation & extrapolation
Time series



Terms 3 & 4

Mid year test:- GCSE calculator exam start of term 4



STATISTICS

Averages from grouped table data
Averages from ungrouped table data
Averages from discrete data
Collecting data with no bias

PERCENTAGES

Percentage increase and decrease
Finding percentages of an amount

GROWTH & DECAY

Rates of percentage change over time
Compound interest



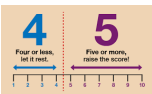
DIRECT & INVERSE PROPORTION

Inverse proportion problems
Apply index rules with brackets



ROUNDING

Simple interest
Reverse percentages
Minimum and maximums
Round to significant figures
Round to decimal places



STANDARD FORM

Worded standard form
Calculate using standard form
Convert ordinary to standard form
Change standard form to an ordinary number

INDICES

Calculate using standard form
Apply index rules with brackets
Work with powers
Laws of indices
Calculate with powers

$$\begin{aligned} a^m \times a^n &= a^{m+n} \\ a^m \div a^n &= a^{m-n} \\ (a^m)^n &= a^{m \times n} \end{aligned}$$

Welcome to Year 10 Maths at WGS!

Terms 1 & 2

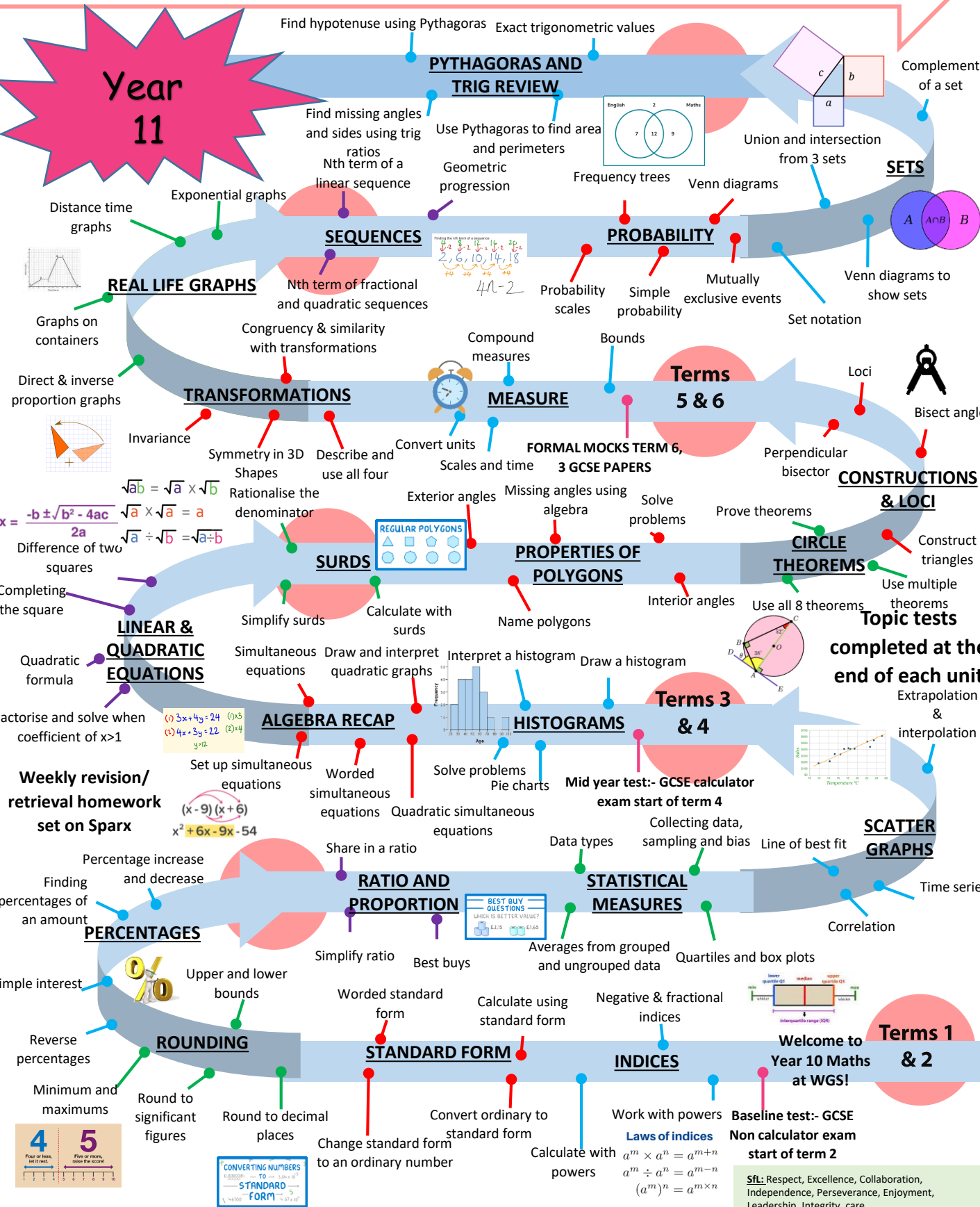
Baseline test:- GCSE Non calculator exam start of term 2

SfL: Respect, Excellence, Collaboration, Independence, Perseverance, Enjoyment, Leadership, Integrity, care



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Curriculum Journey WGS Year 11 Foundation

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GCSE SUCCESS!
A level Maths

REVISION AND INTERVENTIONS FOR GCSE EXAMS

4, 2, 8, 1, 15
 → 1, 2, 4, 8, 15
 MEDIAN

COLLECTING & REPRESENTING DATA REVIEW

STATISTICAL MEASURES REVIEW

PROBABILITY REVIEW

INDICES & STANDARD FORM RECAP

BASIC NUMBER REVIEW

Terms 5 & 6

RECAP

RECAP

RECAP

RECAP

RECAP

CALCULATING WITH PERCENTAGES

TRIGONOMETRY & PYTHAGORAS

VOLUME

CIRCUMFERENCE & AREA

AREA & PERIMETER

Terms 3 & 4

CIRCUMFERENCE & AREA

RECAP

AREA & PERIMETER

RECAP

VECTORS

Weekly revision/
retrieval homework
set on Sparx

TRANSFORMATIONS REVIEW

INEQUALITIES

SOLVING QUADRATIC EQUATIONS

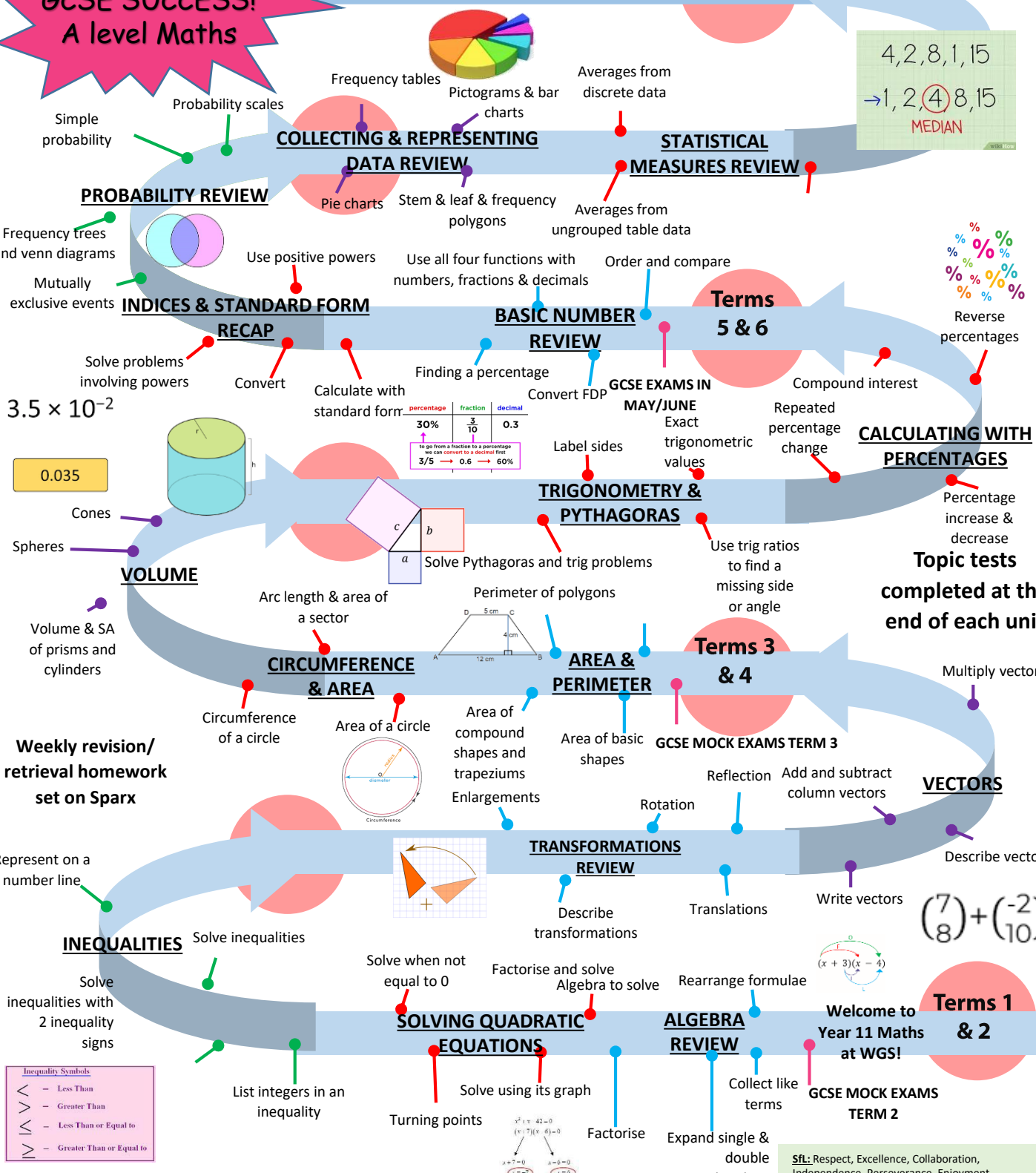
ALGEBRA REVIEW

Welcome to
Year 11 Maths
at WGS!

Terms 1 & 2

GCSE MOCK EXAMS
TERM 2

SfL: Respect, Excellence, Collaboration,
Independence, Perseverance, Enjoyment,
Leadership, Integrity, care



Simple probability

Probability scales

Frequency trees and venn diagrams

Mutually exclusive events

Frequency tables

Pictograms & bar charts

Averages from discrete data

Pie charts

Stem & leaf & frequency polygons

Averages from ungrouped table data

Use positive powers

Use all four functions with numbers, fractions & decimals

Order and compare

Compound interest

Repeated percentage change

Reverse percentages

Solve problems involving powers

Convert

Calculate with standard form

3.5 × 10⁻²

0.035

Finding a percentage

percentage	fraction	decimal
30%	$\frac{3}{10}$	0.3

To go from a fraction to a percentage we can convert to a decimal first

$\frac{3}{5} \rightarrow 0.6 \rightarrow 60\%$

GCSE EXAMS IN MAY/JUNE

Exact trigonometric values

Label sides

Use trig ratios to find a missing side or angle

Cones

Spheres

Volume & SA of prisms and cylinders

Solve Pythagoras and trig problems

Arc length & area of a sector

Perimeter of polygons

Use trig ratios to find a missing side or angle

Percentage increase & decrease

Topic tests completed at the end of each unit

Circumference of a circle

Area of a circle

Area of compound shapes and trapeziums

Enlargements

Area of basic shapes

Reflection

Add and subtract column vectors

Rotation

Describe transformations

GCSE MOCK EXAMS TERM 3

Describe vectors

Write vectors

Translations

Multiply vectors

Describe vectors

Write vectors

Translations

Reflection

Add and subtract column vectors

Rotation

Describe transformations

Write vectors

Translations

Represent on a number line

Solve inequalities

Solve inequalities with 2 inequality signs

List integers in an inequality

Solve when not equal to 0

Factorise and solve Algebra to solve

Rearrange formulae

Expand single & double brackets

Collect like terms

Factorise

Turning points

Solve using its graph

Expand single & double brackets

Collect like terms

Factorise

Turning points

Solve using its graph

GCSE MOCK EXAMS TERM 2

Expand single & double brackets

Collect like terms

Factorise

Turning points

Solve using its graph

Inequality Symbols

<	- Less Than
>	- Greater Than
≤	- Less Than or Equal to
≥	- Greater Than or Equal to

Factorise

Turning points

Solve using its graph

Factorise

Turning points

Solve using its graph

$\begin{pmatrix} 7 \\ 8 \end{pmatrix} + \begin{pmatrix} -2 \\ 10 \end{pmatrix}$

$(x+3)(x-4)$

$x^2 + 7x - 42 = 0$

$(x+7)(x-6) = 0$

$x+7=0$ $x-6=0$

$x=-7$ $x=6$



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